

# ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES      JOSEPH MORGENSTERN, PUBLISHER  
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## “Defining events of 2006”

The Israeli high-tech sector experienced its best year ever, in 2006. Merger and acquisition activity was marked by small and big deals. The Warren Buffett acquisition of Iscar, a \$4.0 billion deal, San Disk's purchase of M-Systems for \$1.5 billion, and Hewlett-Packard's purchase of Mercury Interactive set a new record for foreign investments in Israel.

The Tel-Aviv Stock Exchange Index reached an all-time record high. Foreign investors were major participants. They not only enjoyed rising prices but also a strong Israeli shekel, which added to foreign investors' yields.

Following the successful firing of Arrow anti-missile system, Israel sees the Arrow program as a response to the realistic threat of ballistic missiles in the region.

Intel confirmed that it will build a new \$3.5 billion facility. It is expected to go on stream in the second half of 2008. The Israeli government has approved a \$525 million grant towards the project.

The Red Herring technology magazine has listed six Israeli companies on its roster of 100 most promising small caps, all listed on Nasdaq.

The first Israel-China investment fund was formed.

Johnson & Johnson has formed a joint research program with Weitzmann Institute's Yeda.

The Corner Shot, a novel gun was unveiled. Corner Shot is a gun with a camera and a special barrel that swings on a hinge, allowing the shooter to observe and engage the enemy from around a corner.

1.2 million households had an Internet hook up, a growth of nearly 10 per cent from the preceding year.

Google sets up its first research and development in the Middle East in Haifa.

Billionaire investor Warren Buffett acquires 80 per cent of Iscar Metalworking Companies for \$4.0 billion. For Mr. Buffett it was the first major acquisition of a company outside the United States. The deal was initiated by an e-mail from Eitan Wertheimer, the son of Iscar's founder Stef Wertheimer, which simply said “We have a company for sale”.

<http://ishitech>

### Defining events of 2006

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Ormat sells OPTI shares to finance biodiesel activity

The American Nasdaq stock market launched an index of the Israeli companies listed on its exchange.

July marked the beginning of the War in Lebanon. Israel could not find an answer to the 1,000 katyushas that landed in its territory. The war did not impact the Israeli high-tech sector as business continued, as usual.

San Disk, the world's largest manufacturer of memory cards, used in portable devices, acquired Israel's M-Systems Flash Disk Pioneers for \$1.55 billion.

Hewlett-Packard purchases Israeli Mercury Interactive for \$4.5 billion.

Foreign investment in Israeli start-ups ballooned to \$2.2 billion.

Epix Pharmaceutical concluded a \$1.2 billion deal with Glaxo Smith Kline.

Intel introduces its quad-core processor into the market place. The revolutionary processor was developed at Intel's Haifa R & D facility.

Israel's telecommunications exports reached \$3.3 billion.

2006 was Israel's best year in terms of economic achievements. Bank of Israel Governor Prof. Stanley Fischer predicted that the growth for 2006 would reach 4.6% and he predicted an additional 4% growth in 2007.

Barring any major political upheavals Israel is poised to attract substantial additional foreign investment and hopes to record another stellar performance in 2007.

We wish all of our subscribers and friends best wishes for the holiday season and New Year.

### Skype adds lie detector to VoIP service

Skype's lie detector analyses the audio stream and checks for stress levels



Skype has announced that it will be adding an optional lie detector to its popular internet telephony service.

The 'KishKish' software attempts to determine whether the caller is telling a whopper by analysing the audio stream and checking for stress levels.

Lying evokes the 'fight or flight' response in humans, which makes muscles tense up, altering the pitch and tone of the voice.

"This is a really neat application, and the kind of thing we want to see more of," said Paul Amery, director of Skype's developer programme.

"Lie Detector is the latest in a variety of products in our premium Extras for Skype which greatly enhance the Skype communication experience."

The software was developed by Israeli software house BATM, and is already in use by the US military.

The software is available from Skype as a premium add on. No price or release date have been announced.

### Israel-India technology agreements

Since 1991, over 73 technology collaboration

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agreements have been approved between Indian and Israeli companies and with Rs 4,246 crore in approved investments for 96 proposals till 2003, Israel is today the 14th largest foreign investor in India. And if it all looks good for India, Pune has enough reason to smile.

### Overview of Israel's Internet & Broadband

Internet penetration is growing quickly. Five major and about 70 smaller Internet service providers serve more than three million users, including above 60% of households and above 80% of businesses. Cellular phone companies introduced wireless Internet during 2001. Bezeq began to offer ADSL services in 2000, and the cable companies started to provide broadband cable modem access in March 2002. As a result of the competition, the penetration rate of broadband to households has grown from 4% in 2002 to 62% in June 2006. Fixed broadband service in Israel (by Cable Modem or ADSL) has a home-pass of 99%. The tariffs of broadband Internet have decreased in dozens of percentages. The cable companies and Bezeq are obligated to provide universal deployment of broadband Internet access service. Broadband penetration rates are quite promising: 800,000 ADSL subscribers and 430,000 cable modem subscribers, as of December 2005, translate to a penetration rate of 58% per households in 2005 and 18% per inhabitants, placing Israel among the leading countries in the world in terms of broadband penetration. Factors encouraging this growth include the competition between Bezeq and the cables companies (both are under universal service obligation), competition between five major ISP's widespread use of computer in business and at home, advanced telecommunications infrastructure and a regulatory policy of minimal intervention. Several sophisticated Hebrew-language portals and more than 60,000 web pages also contribute to ubiquitous Internet use in Israel. Israel is a world leader in developing Internet technologies and applications, and Israeli companies operating in the field have marked several international successes. This international reputation is also recognized on the home market, and influences local interest and use. The country's strong tradition of academic inquiry and research has placed Israel on the global research network for the NGI (Next Generation Internet),



linking Israel to the world's seekers of scientific and industrial knowledge through StarTap (Chicago) to the U.S. Internet 2 Network, through the Point of Presence (London) to the EU GEANT Network and to Q-Med (Mediterranean consortium Quantum extension).

### The Israeli Satellites

The AMOS-1 Israeli geostationary satellite, located at 4 degrees west, began operations in 1996. It was built by the Israeli Aircraft Industries (IAI) and uses 7 Ku-band transponders, primarily for direct-to-home television broadcasting, TV distribution and VSAT services for customers in the Middle East and in Central Europe. Spacecom Ltd. is the exclusive marketer and service provider of AMOS-1 services.



Another satellite, the Gurwin-II TechSAT, was launched in July 1998. This experimental satellite was designed, manufactured and is controlled by The Technion-Israel Institute of Technology. The Gurwin-II TechSAT provides communications, remote sensing and research services.

ImageSat system— designed and manufactured, like AMOS-1, by IAI, provides services via MBT Ltd., an international consortium headed by Israeli Aircraft Industries, had launched its EROS satellite in 2000. EROS is a non-geostationary orbit satellite, which provides highly accurate commercial photography and surveillance services.

In December 2003, Spacecom Ltd. launched AMOS-2 and it is co-located with AMOS-1. AMOS-2 has 11 Ku-band transponders and 3 backup transponders, 72 MHz bandwidth each. It has 3 spot beams: the Middle East beam supports up to 11 transponders; the Europe beam supports up to 6 transponders; and US East Coast beam supports up to 8 transponders.

### Kyphon buys Disc-O-Tech's spinal assets for \$220m

Kyphon Inc. (Nasdaq: KYPH), today announced that it would acquire all spine-related assets of Disc-O-Tech medical technologies. Under the terms of the agreement, Kyphon will pay Disc-O-Tech \$60 million immediately, another \$40 million with the sale of two initial products and a total of another \$120 million in three equal annual installments will be paid beginning in January 2008 for Disc-O-Tech's

Confidence System assets. An additional \$20 million, in contingent payments may also be paid based on the development of further technologies. Kyphon will finance the upfront payments due with cash on hand and an already established escrow.

### PortAuthority Technologies to be acquired by Websense for \$90m.

Israeli startup PortAuthority Technologies will be taken over by Websense for approximately \$90 million in cash. PortAuthority Technologies was founded in 2000, and currently has 60 employees.



Port Authority Technologies, which provides solutions for Information Leak

Prevention, has been a partner with Websense since September 2006, when the two firms signed an OEM technology alliance to deliver comprehensive security solutions

Websense markets a malicious content identification and categorization technology. The combined product offering will allow organizations to manage how confidential data is permitted to leave an organization and under what circumstances.

“Websense is committed to maintaining PortAuthority’s research and development presence in Israel and retaining the engineering talent responsible for this innovative technology,” said Websense CEO Gene Hodges.

### Turn Eyeglasses Into Movie Screen

An Israeli optics company says it has developed a miniature video projector that turns regular eyeglasses into a personal video screen.

The technology, which until now has only been seen in movies such as Mission Impossible, projects a widescreen video image unnoticeable to anyone but the bespectacled individual.



“Imagine you’re sitting in a meeting and you want to read an e-mail you just click a button on the phone in your pocket and you start reading away while you’re looking attentively at the person who’s giving the presentation,” Ari Grobman, business development

manager at Lumus Ltd., said in an interview.

Lumus has been approached by major manufacturers of cellular phones and portable media players and expects the product to be on the market during 2007.

Motorola Inc. is listed as an investor in the venture capital-funded company.

The product can be used as regular, corrective eyeglasses, but it also creates an image matching that of a 70-inch television screen viewed from 10 feet away, Grobman said.

The difference between this eyewear and ordinary spectacles is only in the small, black box attached to the earpiece that receives the video signal and projects it into the lenses. The light waves then travel through fiber optics within the lenses where they are enlarged and directed at the eyes.

Aside from watching movies and checking e-mails, Grobman said the technology will eventually provide drivers with virtual navigation through GPS.

### 3 Israelis in “SC Magazine” security top 30

Three Israeli companies made “SC Magazine’s” list of the world’s top 30 IT security companies, published in the magazine’s December issue. The companies are Check Point Software Technologies Ltd. (Nasdaq:CHKP) in 15th place; Aladdin Knowledge Systems Ltd. (Nasdaq:ALDN; TASE:ALDN) in 27th place; and Comsec Consulting Ltd. (TASE:CMSC), in the 30th place, the first time it made the list.



SanDisk Corporation (Nasdaq:SNDK), a US company founded by chairman and CEO Dr. Eli Harari, a former Israeli, also made the list. SanDisk acquired Msystems for \$1.55 billion in shares earlier this year.

### Magink’s technology to illuminate billboards

An Israeli company, Magink Display Technologies, has developed a billboard that uses a type of synthetically produced cholesterol to help display digital images.



When electrical impulses are applied to the material, which is in a thin layer beneath a transparent screen, its molecules change shape and size, forming full-color images.



JCDecaux, an outdoor advertising company based in France, tested the billboards during the Cannes International Film Festival last spring. They are getting a longer look in London, where the billboard division of Clear Channel Communications has set up eight screens.

Under a new agreement, American introduction of the Magink technology is planned by Lamar Outdoor Advertising, a billboard operator with corporate headquarters in Baton Rouge, Louisiana. Lamar plans to set up an unspecified number of Magink billboards in the United States, starting in the second half of 2007.

This technology is one of a number of ways through which outdoor advertising companies are trying to adapt the old-fashioned billboard for the digital era. By replacing paper and paste with electronic screens, billboard companies can control advertising sites from an office computer, allowing advertisers to update them as they see fit.

Magink says its technology is an improvement on existing electronic billboard technologies like the L.E.D., or light-emitting diode. L.E.D.'s produce giant, colorful electronic images, but they sometimes fade in strong sunlight.

### **“The Economist”: Israel in top 5 emerging markets**

Israel has risen 12 places to become the world 36th largest economy.

In its latest emerging markets survey, “The Economist” notes that Israel has been one of the five fastest growing emerging markets in the past 20 years. Israel has risen 12 places from the world’s 48th biggest economy in 1980-84 to 36th biggest economy in 2001-05. “The Economist” ranked economies by size on the basis of their five-year average GDP in current dollars, and compared the rankings of 1980-84 with 2001-05.

The four fastest climbing countries are in Asia: Singapore rose 20 places from the world’s 59th largest economy in 1980-84 to 39th in 2001-05; Taiwan rose 14 places from 32nd place to 18; South Korea rose 12 places from 23rd place to 11th; and Hong Kong also rose 12 places from 42nd place to 30th. Israel climb matched those of South Korea and Hong Kong.

Elop Ltd.: Elop to Provide Thermal Imaging Sensors for the Korean Tank K1A1

Elop Ltd. will supply Thermal Imaging kits for the Gunner Periscope Sights of the Korean Tank K1A1. The contract is valued at approximately \$19 million.

The Samsung-Thales group, which was selected as primary contractor of the project to upgrade gunner periscope sights for the Korean tank K1A1, will supply, install and test the systems.

Rafael has developed a laser system to destroy roadside bombs

The Israeli Armaments Development Authority (Rafael) has developed a laser system to destroy roadside bombs, which have killed hundreds of US and Israeli soldiers in Iraq and Lebanon.

### **Banks adopt Magal’s security system**

Magal Security Systems, Ltd. (NASDAQ GM: MAGS; TASE: MAGS), today announced it has received an order through one of its fully owned subsidiaries,



to install its PipeGuard system to protect 6 bank branches from underground intrusions.

Following a long and thorough market study, Magal came to

the conclusion that one of the major physical threats that banks worldwide currently face, are robberies of valuables contained in safes located below ground by the digging of tunnels beneath the bank’s building.

Magal Group’s PipeGuard system utilizes an innovative and unique

technology to guard buried assets. The system has the ability to detect

potential attacks and intrusions and alert authorities before potential

harm or damage occurs.

### **Epix Pharmaceutical in \$1.2 billion deal with Glaxo Smith Kline.**

Epix (Nasdaq: EPIX) will get \$35 million upfront from Glaxo (NYSE: GSK) to produce a number of drugs including one that treats early stage Alzheimer’s disease. The companies said in a joint statement that Epix would be eligible to earn a potential \$1.2 billion “based on the achievement of certain discovery, development, regulatory and commercial milestones.”

Epix has research facilities in Israel, \$17.5 million. It will also get royalties on Glaxo’s sales of drugs produced through the venture.

Epix said it had been on the lookout for a partner with vast experience in clinical development and commercialization. Glaxo was the ideal partner for the continued development of our 5-HT4 Alzheimer's program," said Epix chief business officer Chen Schor.

### 4% growth for 2007

Prof. Stanley Fischer, Governor of the Bank of Israel, speaking at the Globes Business Conference predicted a 4% growth rate for Israel's economy in 2007. Fischer spoke at length about the openness of the Israeli economy. He highlighted five features: in the current decade the share of exports in GDP has reached an average of about 40%; in the same period the share of imports in GDP has reached an average of about 41%; foreign investments in Israel reached about \$ 17 billion in January-October 2006, an all-time peak; Israelis' investments abroad in January-November 2006 reached about \$ 21 billion, of which some \$ 12 billion were direct investments; Israel is in second place (after the US) in terms of the number of companies listed for trading on the Nasdaq.

Concurrently the Central Bureau of Statistics announced that Israel's balance of payments surplus grew by one third in the third quarter of 2006 to a record \$2.4 billion from \$1.8 billion in the preceding quarter

### EAPC adopts BioPetroClean's bioremediation technology

BioPetroClean, a provider of commercial grade bioremediation systems for oil contaminants, announced the successful installation of its bioremediation technology for the Eilat Ashkelon Pipeline Co. Ltd. (EAPC), Israel's land bridge for transporting crude oil from the Red Sea to the Mediterranean. EAPC is the first commercial company to adopt BioPetroClean's Bioremediation technology developed by Professor Eugene Rosenberg, PhD, a world-renowned authority in the biological treatment of oil pollution.

Prof. Rosenberg, together with Professor Eliora Ron, pioneered the use of naturally occurring bacteria to clean up oil pollution in oil tankers, pipelines and on beaches in the 1970s, including the infamous Exxon Valdez oil spill off the Alaskan coast.

"EAPC selected BPC after several months of successfully testing their bioremediation solution to clean oil contaminations from drainage water at one

of our oil storage farms and receiving EPA approval to discharge the water back to nature. We were relieved to find a company (BPC) that provides a bio-digestible, environmentally friendly treatment for oil contamination that both meets EPA requirements and is cost and time effective."

### Professor Stephen Hawking visits Israel

Professor Stephen Hawking visited Israel for an eight-day visit. The world-famous physicist is best-selling author of A Brief History of Time. Professor



Hawking met with teenage scientists in an event organized by the British Council at the Bloomfield Museum of Science in Jerusalem.

Professor Hawking met Prime Minister Olmert and gave a public lecture to over 1,000 people at Hebrew University.

Also during his visit here, he visited the Weizmann Institute and Tel Aviv University and met representatives of the Israel Academy of Sciences.

### Technion's Dr. Shulamit Levenberg one of 50 leading scientists

Dr. Shulamit Levenberg of the Faculty of Biomedical Engineering at the Technion-Israel Institute of Technology was named a "science leader" by the Scientific American. Dr. Levenberg is a researcher in the Russell Berrie Nanotechnology Institute and a member of the Stem Cell Center at the Technion.



"Our publication chose the organizations or individuals who advanced science and technology, laying the foundations for a better future," said John Rennie, editor of Scientific American, one of the world's most prestigious science magazines. "Their selection for our list of 50 not only gives them the honor they deserve but also highlights the important fields that benefit from their achievements."

Dr. Levenberg is a leader in tissue engineering, the artificial growing of new human tissue for replacement purposes. Most recently, Dr. Levenberg created muscle tissue with a blood vessel network that attracted additional blood vessels when transplanted into an animal, aiding the tissue's survival and integration.

The journal Scientific American was founded in 1845

and since then has published articles by more than 100 Nobel Prize laureates.

“I feel very honored to be included in such illustrious company and will continue to work to the best of my abilities to live up to this recognition,” Dr. Levenberg said, adding that her success is dependent on the collaboration with other scientists, especially MIT’s renowned Bob Langer, with the Technion students who spend long days in her laboratory, and on the support of her family. Dr. Levenberg is the mother of five children.

### Israeli scientists probe deeper to lift depression

Scientists in Israel are successfully reaching deeper into the minds of the clinically depressed. Applying an Israeli developed upgrade to Transcranial Magnetic Stimulation (TMS) therapy, they can now send electronic currents induced by alternating magnetic fields up to 8 cm (3 inches) into the brain to stimulate parts that had been out of reach.



The improved technology was developed in 2002 by Israeli scientists, led by Abraham Zangen at the Weizmann Institute of Science, and described that same year in an article published in the Journal of Clinical Neurophysiology.

In the article, Zangen and research colleagues said they expected to achieve “deep brain stimulation” without the need to increase the intensity of the current.

Israeli doctors are now conducting a clinical trial at Shalvata Mental Health Care Center in the central Israeli town of Hod Hasharon, to test the device on patients for the first time.

They hope their findings will persuade the U.S. Food and Drug Administration to approve the use of TMS to treat depression. The long-term effects of the method, which was developed in 1985 and has been used and tested worldwide, remain unknown.

Scientists participating in the study believe the improved TMS therapy could also help stroke victims or control various addictions more efficiently than conventional drug and surgical treatments, and with

fewer side effects.

Previously, electronic pulses generated by TMS could penetrate only 1.5 cm (0.6 inch) into the brain, scientists taking part in the testing said.

During the experimental TMS treatments, patients sit in a chair and wear a helmet made of wires, strapped under the chin.

A doctor places a coil near the head and administers a two-second electrical pulse, which sounds like a machine gun, periodically for 15 minutes.

Volunteers take part in 20 such sessions for one month. During that time, they are taken off prior medication used to treat their psychiatric illnesses.

Dr. Zangen said this indicated that TMS patients may require continuous treatment if the upgraded therapy is approved for wider use.

The researchers had tested the TMS therapy on healthy volunteers before the current treatments and plan to later conduct a larger clinical trial involving hundreds suffering from depression and publish the findings in a medical journal.

### 2006 to be record year for defense exports

2006 is set to be a record year for Israeli defense exports. Early estimates, point to an order backlog of \$4.1 billion at the end of November. \$500 million should be added to this figure on the basis of expected new contracts. These include the sale of 2,600 Spike-ER extended range multi-purpose missiles, made by Rafael Armament Development Authority Ltd., to the Spanish Army for \$428 million

The previous orders backlog record was set in 2002: \$4.02 billion.

“Defense News” reports that the orders backlog of Israeli defense contractor’s account for 10% of total global arms sales in 2006. Israel is the world’s fourth largest arms exporter in the world, after the US, Russia, and France.

Last year, US companies signed contracts for the sale of arms worth \$12.75 billion, Russian companies signed contracts worth \$7.9 billion, and French company



signed contracts worth \$7.4 billion.

“Defense News” says Israel Aircraft Industries Ltd. (IAI) will have signed contracts worth \$2.7 billion at the end of 2006; Rafael will have contracts worth \$1.1 billion, up from \$830 million at the end of 2005, and is in advanced negotiations for a \$400 million deal.

### 5 Israelis win Frost & Sullivan awards

Five Israeli companies have won this year's Frost & Sullivan Emerging Technologies Award, out of 24 European winners. The other winners are six companies from the UK, four from Germany, two from Switzerland, and one each from Belgium, Finland, Ireland, Italy, the Netherlands, and Sweden.

The Israeli winners are as follows:

Or Sense, which won the 2006 Technology Innovation Award for its NBM-200 non-invasive monitor of blood glucose and other concentrations.

Glycominds Ltd., which won the 2006 Technology Innovation Award for its tools that use biomarkers to monitor types of sugars in the blood for Inflammatory Bowel Disease diagnostics and Crohn's disease severity prediction.

Trig Medical Inc., which won the 2006 European Technology Innovation of the Year Award in the Labor Monitoring Technologies for its software labor monitoring system. Trig also was awarded the Frost & Sullivan Award in recognition of its advanced, innovative labour monitoring system - LaborPro. This integrated ultrasound and foetal monitoring technology provides accurate, objective, and non-invasive determination of foetal head station and position and is a simple, easy-to-use procedure that benefits the mother, the unborn baby, and the obstetrician during childbirth.

Convergin Ltd., which won the 2006 Product Innovation Award for its wireless convergence server platform.

NICE Systems Ltd. (Nasdaq: NICE; TASE: NICE), which won the 2006 Excellence in Technology Award for its voice video surveillance security solutions.

The Frost & Sullivan innovation awards were awarded to companies conducting innovative research that leads to the development of products likely to make a significant contribution to industry. In picking the winners, Frost & Sullivan takes into consideration the quality of the company's R&D, as well as the vision and level of risk taking that made the breakthrough possible.

In a separate development, the World Economic Forum

has included two Israeli companies in its “Technology Pioneers 2007” list. 47 companies made the list. The Israeli companies are Given Imaging Ltd. (Nasdaq: GIVN; TASE: GIVN), which develops and markets diagnostic endoscopic capsules; and Brainsgate, which offers an implantable medical device for treatment of diseases of the brain and central nervous system.

### Gilat to provide more satellite stations to Mexico schools



Gilat Satellite Networks Ltd. (Nasdaq: GILT; TASE: GILT) has signed a contract with Alef Soluciones Integrales and Corporative Lanix to provide a 4,400-site SkyEdge VSAT network serving more than 7,700 Mexican public-school classrooms, to support the middle-school phase of the Mexican Ministry of

Education's Enciclomedia program. The deployment of the network hub and terminals, has already begun.

Gilat did not disclose the size of the contract, but market sources estimate it at \$5 million.

Earlier this year, Gilat announced it had provided more than 15,000 SkyEdge VSATs and services to support the first phase of the Enciclomedia program, which focused on primary schools. Combined with the new contract, Gilat's SkyEdge will connect 41,000 Mexican classrooms.

### Millennium Electric to build solar power station in Italy



Israel's Millennium Electric TOU Ltd., a developer of photovoltaic-based power systems with thermal solar elements, has signed an agreement with Italy's Lavori to build solar power stations, solar-powered gas stations, and to convert street lighting in Rome to solar-powered street lights.

Lavori is about to build a 105-megawatt (MW) solar power station. It contracted with Millennium Electric to build a 10-MW power station in the first stage, with an option to expand the contract after the first year. Lavori plans to invest €500-750 million in the projects over five years. €50 million will be invested in Millennium Electric's 10-MW solar power station. Millennium Electric CEO Ami Elazari estimated the company's



share of this project at 15%, before calculating its share of electricity sales from the power station.

### Ormat sells OPTI shares to finance biodiesel activity

Ormat Industries (TASE: ORMT) announced that it sold 4 million shares in its subsidiary OPTI Canada for \$69 million in order to finance its entrance into the field of biodiesel.



Prior to the sale, Ormat Industries had an indirect stake of 7.5% in OPTI. Its stake was diluted to 5.3% by the sale.

Ormat Industries had announced its intention to enter the field of biodiesel in late September. The company invested \$13.5 million in R&D and \$35-50 million in infrastructure. The total investment is expected to be \$48.5-63.5 million.

Ormat Industries, which controls Ormat Technologies (NYSE: ORA), will post an after tax capital gain of \$34 million for 2006.

### ECI to upgrade Beijing power communications network

ECI Telecom Ltd. (Nasdaq: ECIL) announced that Beijing Power has chosen ECI to upgrade its optical communications network in preparation for the 2008 Olympics. The size of the contract was not disclosed.



In preparation for the Olympics, Beijing Power is building new power stations, connecting

multiple Olympics sites and upgrading its current communications infrastructure. ECI's XDM optical solution will be used to expand this network, providing Beijing Power with additional bandwidth capacity to handle peak demand during the Games. The network will be managed by ECI's LightSoft network management system, enabling Beijing Power to easily provision and control new services.

### NDS buys start-up Jungo

NDS Group (Nasdaq: NNDS), a provider of technology solutions for digital pay-TV, is buying Israeli start-up Jungo Ltd. for \$100 million.

Founded in 1998, Jungo is a provider of residential and business gateway software platforms and applications.

Investment in Jungo has totaled \$13.5 million to date. Jungo's investors include Conexant, Cipio Partners, Intel Communications Fund, Intel Capital, Partech International, Telesoft Partners, and Israel Industrial Resources Fund, L.P. The company has some 140 employees.

### Israel seeks high-tech shield

Israel is speeding up plans to install a high-tech shield to protect its civilians from rockets, according to army officers and defense ministry officials. But two leading Israeli experts said no system currently available could stop the low-tech rockets, more than 1,000 of which have landed in Israel since 2001.

Israel has undertaken several incursions into Gaza to stop the rockets, killing dozens of militants and civilians in November alone, but the rate of fire has only increased.

Israel has been looking at anti-rocket systems since 2003 but is now speeding up its effort and putting millions of shekels aside for this purpose, the defense officials said, speaking on condition of anonymity because the anti-missile preparations are secret.

The officials said defense ministry representatives visited a Lockheed Martin facility in the US recently to look at one potential system: the Skyshield, a cannon that fires 35mm shells that intercept rockets and explode, preventing them from hitting the target.

John Pike, director of the GlobalSecurity.org think tank in Alexandria, Virginia, said the system was similar to the one that has been successfully tested for US forces in Iraq.

The officials said the Israeli military was also considering a variant of the Nautilus, under development by Northrop Grumman, which uses high-energy laser beams to intercept incoming missiles.

It was developed with Israeli co-operation to counter the threat of Hezbollah rockets on Israel's northern border.

The system could be potentially effective, Pike said, though some tests indicated that clouds or dust could interfere with the lasers and render it ineffective.

## TIM survey: 72% of Israel's Jewish households surf the Internet

More than 50% of the Israeli population surfs. The country has 3.9 million surfers aged 13 and up, according to the TIM Internet survey carried out by TNS Teleseker.

72% of Jewish households are online, compared with 69% a year ago. The total population of Internet users is 3.9 million, out of a population of about 7 million.

The survey addresses demography too. Most surfers, 54.7%, are men, and the widest use is actually in the age range of 30 to 49, in which the proportion of surfers is 39.3%. Among 18 to 29 year olds, 35% surf, while among the 50-plus set the figure drops to 25.7%.

Also, surfing is popular among people with education: 40.3% of people with high-school education surf, compared with 55.1% among graduates of higher education. Only 4.4% of people without formal education after primary school surf.

Income counts, too: among wealthier households, 42.9% are online.

## Israel may develop aerial-refueling UAVs



The Israel Air Force is considering unmanned aerial vehicles (UAVs) that can refuel in midair, and unmanned tankers that can haul the fuel up and autonomously deliver it.

Tanker concepts worthy of evaluation include refueling among "like-minded platforms ... such as a UAV refueling a UAV," or manned aircraft whose speed and altitude are optimized for midair servicing of pilotless fighters according to Brig. Gen. Yohanan Loker.

IAI has already simulated scenarios in which UAVs could autonomously refuel other UAVs.

Sources said that the UAV development project is likely to be led by Israel Aircraft Industries Ltd. (IAI), Israel's sole provider of aerial refueling capabilities, and a key manufacturer of UAV systems. Over recent years, an IAI unit has been converting Boeing 707, C-130 and Ilyushin aircraft into air tankers and equipped dozens of fighter aircraft and helicopters with aerial refueling capability.

Tanker UAVs would meet Air Force requirements for increasingly multimission unmanned aircraft by

expanding the number of missions that could be done on the same UAV platform.

Defense and industry sources here said tanker UAVs would ease the burden of controlling so many unmanned platforms without reducing the persistent presence needed to quickly put weapons on a spotted target.

## NeuStar acquires Israeli Followap for \$140m

Followap is a developer of advanced platforms for instant messaging on cellular devices, to US directory and clearing house services provider. NeuStar Inc. (NYSE: NSR) is paying \$140 million. NeuStar has a market cap of \$2.35 billion.



Based in the UK, Followap provides next-generation communications solutions for network operators, delivering interoperability between operators and Internet portals in five different functional areas: instant messaging, presence, multimedia gateways, inter-carrier messaging hubs, and services for handset clients. The company's R&D division is based in Haifa.

## Israel's energy opportunity overlooked

Israel could be the next big opportunity for clean energy investors, according to a report released Monday by New Energy Finance.

But investors don't know it, the company says. "Israel is unknown to a lot of venture capital and private equity investors in clean energy," says Chris Greenwood, operations director at the London-based research and consulting firm. "What we've tried to do is open the eyes of the worldwide investment community to the opportunities there."

Overall, cleantech investment is growing. According to a New Energy Finance study released in August global private equity and venture capital surged to more than \$2 billion in the second quarter of this year, tripling from the first quarter and more than doubling from the second quarter of 2005.

Reports released in October and November by a different industry monitor, the Michigan-based Cleantech Venture Network, found that VC cleantech investments in Europe fell in the third quarter while North American VC cleantech investments grew.

The network still expects overall growth for the full year.

Most of the investment activity is in the United States, by U.S. investors, and in Europe, by European and U.S. investors, Mr. Greenwood said.

The country has a good track record in technology investments, said Mr. Greenwood, who pointed to Intel's research facilities there. Israel has already produced clean-energy companies such as publicly traded Ormat Technologies and Medis Technologies. Israel also spends more on R&D per unit of gross domestic product, has more engineers per capita, than any other country in the world, and has "more reason than most" to develop fossil-fuel alternatives, according to the report.

New Energy Finance concludes that Israel is ready to generate more leading clean energy companies, and identifies "an immediate need" for \$210 million of venture capital and private equity investment spread over private companies such as Algatechnologies, Cerel, Elspec, Engineuity, Genova, GreenFuelCells, MainNet Communications, Metal-Tech, Millennium Electric, Modcon, and Solel Solar Systems.

"Israel has been doing world-class research into clean-energy technologies for decades, but the state-owned monopoly electricity utility has been slow to provide support for pilot projects," said Michael Liebreich, CEO of New Energy Finance, in a press statement. "Anyone looking to invest in clean energy technology should be in Israel right now."

Mr. Greenwood didn't have figures for cleantech investment in Israel to date, but said total investment in Israeli technology companies reached \$764 million in the first half of 2006. The \$210 million opportunity would represent only about 5 percent of the \$4 billion in worldwide VC and private equity investment New Energy Finance expects for 2006.

### **Copper fabrics that are said to heal**

Cupron, a 6-year-old company based in Greenboro, N.C. which conducts its research and development in the Jerusalem suburb of Beit Shemesh says it is the first textile manufacturer to produce fibers "impregnated" with copper oxide, an agent that kills bacteria and odor on contact. Among the company's various products which are claimed to heal and prevent athlete's foot.

The company says that Cupron, Inc. has successfully created a cost effective platform technology that

utilizes the qualities of copper and binds copper to textile fibers, allowing for the production of woven, knitted and non-woven fabrics containing copper-impregnated fibers with the antimicrobial protection against microorganisms such as bacteria and fungi that attack Cupron fibers.

Cupron is supplying the U.S. army and has signed a contract with North Carolina sock manufacturer Renfro Corp., which developed its "copper-sole" brand using Cupron's patented technology.

Tests conducted in independent testing laboratories have demonstrated product efficacy in deactivation of a wide variety of microorganisms. The company is now awaiting approval by the FDA.

There is nothing new in the belief in the efficacy of copper to heal a variety of diseases. It goes back thousands of years. The ancient Egyptians and Greeks used copper pipes to clean drinking water and the Aztecs used it for sore throats. Today, many arthritis sufferers wear copper bracelets to relieve their pain. The company gifted socks to Israeli troops during last summer's war against Hezbollah guerrillas in Lebanon.

The company projects sales of \$10m. in 2007 and expects to break even.

### **IVC's 2006 Summary: Israeli High-Tech M&As valued at \$10.6 billion;**

M&A activity involving Israeli companies that were either acquired or merged totaled \$10.58 billion in 2006 in 76 deals. The total dollar volume was significantly higher than in previous years and was a third of the \$35.8 billion for Israeli high-tech M&A deals since 2000 (Figures exclude the \$4 billion acquisition of Iscar).

The most noteworthy M&A deal during 2006 was the acquisition of Mercury Interactive Ltd. by Hewlett-Packard for \$4.5 billion. Other significant deals included the acquisition of M-Systems by SanDisk Corp. for \$1.55 billion, the acquisition of Lipman Electronic Engineering Ltd. by VeriFone Holdings Inc. for \$793 million.

According to IVC General Manager Guy Holtzman, "Most Israeli high-tech companies that were merged or acquired are providing their acquirers with highly accomplished R&D centers, underpinned by strong technology and outstanding human resources. While many talk about India and China or even Eastern Europe, Israeli entrepreneurship and the Israeli



experience still have distinct advantages over the near term, as Israeli managers have prepared to meet the global competitive challenges. We expect foreign interest in Israeli firms to continue in 2007.”

Venture-backed Israeli mergers and acquisitions in 2006 totaled \$2.96 billion and consisted of 45 deals. Included were the acquisition of Passave Inc. by PMC Sierra for \$300 million and the acquisition of Disc-O-Tech Medical Technologies Ltd. by Kyphon Inc. for \$240 million (in several stages until 2008).

In 2006, 20 Israeli companies raised \$693 million through initial public offerings on US, European, Asian and Israeli stock exchanges. Notable offerings in 2006: Playtech Ltd. - raised \$460 million on AIM; Allot Communications Ltd. - raised \$78 million on NASDAQ and Incredimail Ltd. – raised \$49 million on NASDAQ Small Cap.

Venture-backed IPOs of Israeli firms raised \$148 million in six deals including the NASDAQ offerings of Allot Communications and Omrix Biopharmaceuticals Ltd. (\$39.6 million). The material was supplied by IVC.

### A Transplant in Time

In hemophilia, a mutated gene prevents the production of a critical blood-clotting protein. Treatments for hemophilia and other such genetic diseases, when they exist, may consist of risky blood transfusions or expensive enzyme replacement therapy. But what if the body could be induced to begin producing these proteins, say by transplanting healthy tissue with the abilities that are lacking.

Prof. Yair Reisner, showed, in research recently published in the Proceedings of the National Academy of Sciences (PNAS), how such a transplant might, in the future, be made feasible.

Previous attempts to treat genetic disease by transplanting (mother to daughter) a spleen, an organ that can manufacture a number of the missing proteins in some such diseases, had made little headway due to the fact that the spleen is home to the immune system's T cells – cells responsible for the severe immune responses against the recipient known as graft-versus-host disease (GVHD).

Reisner and his team revived the idea, with a twist. Over the past several years, he and members of his lab have been experimenting with tissue transplanted from pig embryos – a possible substitute for human

donor organs. From this, they have learned that for each type of tissue, there is a window of opportunity during which cells taken from the developing embryo can be most successfully transplanted. Tissues taken too early, when they are still fairly undifferentiated, may form tumors, while those taken too late can be identified as foreign, causing the host to reject them.

By taking spleen tissue from embryonic pigs over the course of gestation, they found that the harmful T cells are not present in the tissue prior to day 42 of gestation. The scientists also found that tissue of this age exhibits optimal growth potential as well as secreting factor VIII, the blood-clotting protein missing in hemophilic patients. Thus, the scientists fixed the ideal time for spleen transplantation at 42 days. Hemophiliac mice with spleen tissue transplanted from pig embryos at this time experienced completely normal blood clotting within a month or two of implantation.

Although a number of problems would need to be surmounted before researchers could begin to think of applying the technique to humans, the Institute team's experiment is 'proof of principal' – evidence that transplanted embryonic tissue, whether human or pig, could one day help the body to overcome genetic diseases



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